

ABSTRACT

Medical dilatation balloons comprise a polymer that has the attribute of memory, and/or is crosslinked to impart memory. Such balloons exhibit a reduced tendency to overinflate at high inflation pressures. Furthermore, such balloons when shrunk radially by the application of heat while restraining axial shrinkage, exhibit customizable linear or non-linear compliance curves and lower crosslinking profile relative to the same balloon when unshrunk. Also disclosed is an expansive element within a tube whose outer diameter is equal to the outer diameter of the tube from which it was made. In addition, disclosed are (a) processes for preparing crosslinkable polymers, (b) joining crosslinked balloons to catheter systems, (c) forming shrunk balloon elements, and (d) forming an expansive element within a tube whose outer diameter is equal to the outer diameter of the tube from which it was made.